

EAST Search History

Ref. #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	763	560/100.ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:51
L2	746	560/106.ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:51
L3	238	560/223.ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:51
L4	613	562/553.ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:52
L5	790	564/155.ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:52
L6	3004	L1 OR L2 OR L3 OR L4 OR L5	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:52
L7	7	L6 AND CASPASE\$	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:53
L8	45	L6 AND APOPTOSIS	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:57
L9	790	562/450.CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:57

EAST Search History

L10	3727	L6 OR L9	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:57
L11	89	L10 AND APOPTOSIS	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:57
L12	20	L10 AND CASPASE\$	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/08/07 17:57

STN Structure Search (Registry/Caplus)

10/542,684

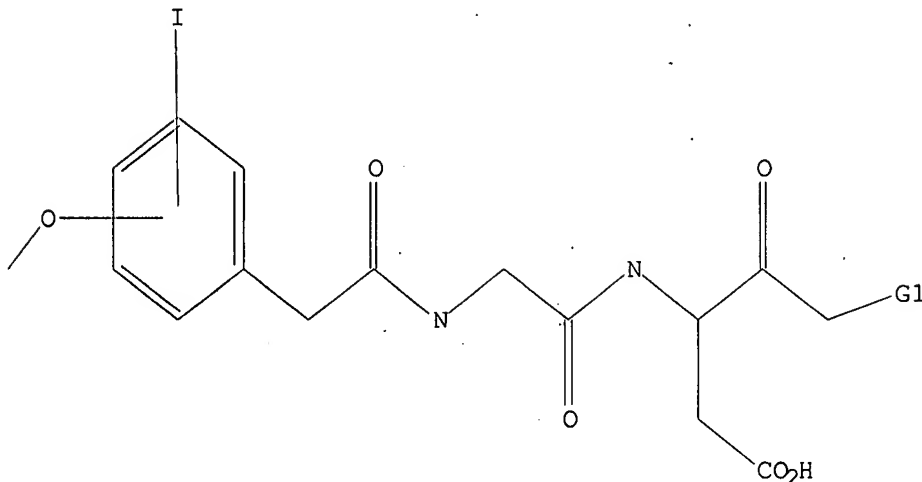
08/07/2007

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



G1 X,O

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 15:59:08 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE** ✓
BATCH **COMPLETE** ✓

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 15:59:15 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED ✓ 50 TO ITERATE

100.0% PROCESSED ✓ 50 ITERATIONS

SEARCH TIME: 00.00.01

19 ANSWERS

L3 19 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 15:59:19 ON 07 AUG 2007

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FILE COVERS 1907 - 7 Aug 2007 VOL 147 ISS 7
FILE LAST UPDATED: 6 Aug 2007 (20070806/ED)

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=> s l3
L4

3 L3

=> d ibib abs hitstr 1-3

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:675703 CAPLUS

DOCUMENT NUMBER: 141:207524

TITLE: Preparation of peptidyl irreversible caspase-3 inhibitors as active site probes
 INVENTOR(S): Colucci, John; Giroux, Andre; Han, Yongxin; Methot, Nathalie; Nicholson, Donald W.; Roy, Sophie; Vaillancourt, John Paul; Tawa, Paul
 PATENT ASSIGNEE(S): Merck Frost Canada & Co., Can.
 SOURCE: PCT Int. Appl., 70 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

Instant App

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004069773	A1	20040819	WO 2004-CA152	20040205
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NG, NL, NT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2514441	A1	20041019	CA 2004-2514441	20040205
EP 1594819	A1	20051116	EP 2004-708291	20040205
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2006519777	T	20060831	JP 2006-501408	20040205
US 2006069038	A1	20060330	US 2005-542684	20050719
PRIORITY APPLN. INFO:			US 2003-445560P	20030207
			WO 2004-CA152	W 20040205

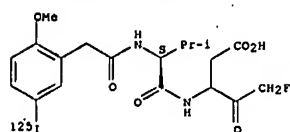
OTHER SOURCE(S): MARPAT 141:207524
 GI

2/7/03

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

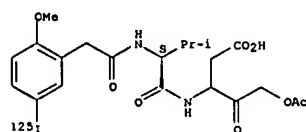
RN 741292-98-8 CAPLUS
 CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



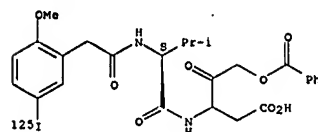
RN 741292-99-9 CAPLUS
 CN Pentanoic acid, 3-(acetyloxy)-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



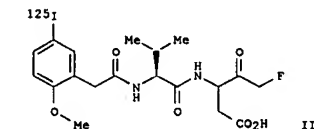
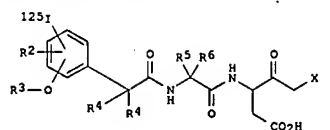
RN 741293-00-5 CAPLUS
 CN Pentanoic acid, 3-(benzyloxy)-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 741293-01-6 CAPLUS
 CN Benzoic acid, 2,6-dimethyl-, 4-carboxy-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-2-oxobutyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB The invention encompasses compds. I [X is halo or O-W-Z, where W is a bond, CH2, CO or COCH2 and Z is H, alkyl, cycloalkyl, Ph, etc.; R2 is H, halo, hydroxy, nitro, cyano, alkyl, etc.; R3 is Ph or (un)substituted alkyl; R4 is H, halo, hydroxy, (un)substituted alkyl or alkoxy; R5 is H, Ph, naphthyl, (un)substituted alkyl or cycloalkyl and R6 is H or R5 and

R6 together form a ring] which are useful for determining whether a caspase has been activated in cells or in tissues of animal models of various pathologies. Furthermore, through competition based assays, these caspase

active site probes can be used to calculate the percentage of occupancy of active caspases by other, unlabeled inhibitors. Thus, peptide II was prepared via coupling reactions of Me (5-iodo-2-methoxyphenyl)acetate, L-valine tert-Bu ester hydrochloride, and tert-Bu

3-amino-2,3,5-trideoxy-5-fluoropentanoate, followed by tributylatannylation, iodination, and deprotection with TFA. II was assayed for inhibition of a subset of caspases and for detection of active caspases in protein exts.

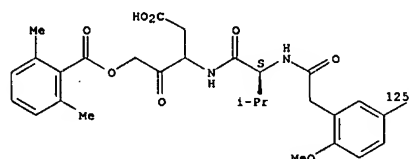
IT 741292-99-8P 741292-99-9P 741293-00-5P 741293-01-6P 741293-02-7P 741293-03-8P 741293-04-9P 741293-05-0P 741293-06-1P 741293-07-2P 741293-08-3P 741293-09-4P 741293-10-7P 741293-11-8P 741293-12-9P 741293-13-0P

RL: DGN (Diagnostic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Preparation of peptidyl irreversible caspase-3 inhibitors as active site probes)

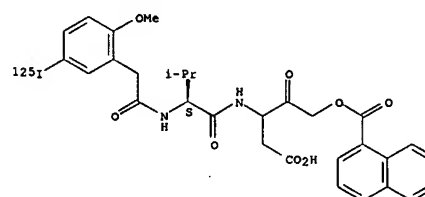
L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



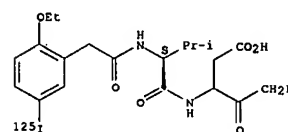
RN 741293-02-7 CAPLUS
 CN 1-Naphthalenecarboxylic acid, 4-carboxy-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-2-oxobutyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 741293-03-8 CAPLUS
 CN Pentanoic acid, 3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

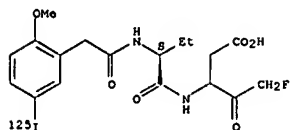
Absolute stereochemistry.



RN 741293-04-9 CAPLUS
 CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

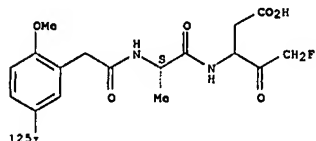
L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
NAME)

Absolute stereochemistry.



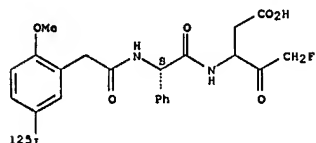
RN 741293-05-0 CAPLUS
CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-1-oxopropyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



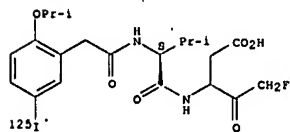
RN 741293-06-1 CAPLUS
CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]phenylacetyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



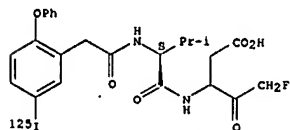
RN 741293-07-2 CAPLUS
CN Pentanoic acid, 5-fluoro-3-[[[(2S,3S)-2-[[[5-(iodo-125I)-2-

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



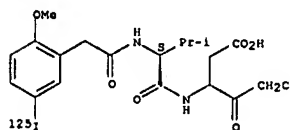
RN 741293-10-7 CAPLUS
CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-phenoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 741293-11-8 CAPLUS
CN Pentanoic acid, 5-chloro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

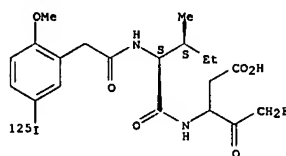


RN 741293-12-9 CAPLUS
CN Pentanoic acid, 5-bromo-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

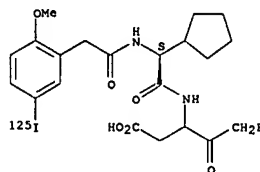
L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
methoxyphenyl]acetyl]amino]-3-methyl-1-oxopentyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 741293-08-3 CAPLUS
CN Pentanoic acid, 3-[[[(2S)-cyclopentyl]amino]acetyl]amino]-5-fluoro-4-oxo- (9CI) (CA INDEX NAME)

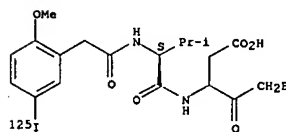
Absolute stereochemistry.



RN 741293-09-4 CAPLUS
CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-(1-methylthoxy)phenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

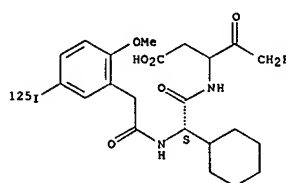
Absolute stereochemistry.

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 741293-13-0 CAPLUS
CN Pentanoic acid, 3-[[[(2S)-cyclohexyl]amino]acetyl]amino]-5-fluoro-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

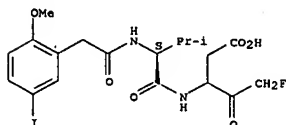


IT 741293-20-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of peptidyl irreversible caspase-3 inhibitors as active site probes)

RN 741293-20-9 CAPLUS
CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(iodo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued)

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 2004:524634 CAPLUS
 DOCUMENT NUMBER: 141:238703
 TITLE: A Caspase Active Site Probe Reveals High Fractional Inhibition Needed to Block DNA Fragmentation
 AUTHOR(S): Methot, Nathalie; Vaillancourt, John P.; Huang, Jingqi; Colucci, John; Han, Yongxin; Menard, Stephane;
 Zamboni, Robert; Toulmond, Sylvie; Nicholson, Donald W.; Roy, Sophie
 CORPORATE SOURCE: Merck Frosst Centre for Therapeutic Research, Merck Research Laboratories, Montreal, QC, H9H 3L1, Can.
 SOURCE: Journal of Biological Chemistry (2004), 279(27), 27905-27914
 CODEN: JBCHA3; ISSN: 0021-9258
 PUBLISHER: American Society for Biochemistry and Molecular Biology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Apoptotic markers consist of either caspase substrate cleavage products or

phenotypic changes that manifest themselves as a consequence of caspase-mediated substrate cleavage. We have shown recently that pharmacol. inhibitors of caspase activity prevent the appearance of two such apoptotic manifestations, α -II-spectrin cleavage and DNA fragmentation, but that blockade of the latter required a significantly higher concentration of inhibitor. We investigated this phenomenon through the

use of a novel radiolabeled caspase inhibitor, [125I]M808, which acts as

a caspase active site probe. [125I]M808 bound to active caspases irreversibly and with high sensitivity in apoptotic cell exts., in tissue exts. from several commonly used animal models of cellular injury, and in living cells. Moreover, [125I]M808 detected active caspases in septic mice when injected i.v. Using this caspase probe, an active site occupancy assay was developed and used to measure the fractional inhibition required to block apoptosis-induced DNA fragmentation. In thymocytes, occupancy of up to 40% of caspase active sites had no effect on DNA fragmentation, whereas inhibition of half of the DNA cleaving activity required between 65 and 75% of active site occupancy. These results suggest that a high and persistent fractional inhibition will be required for successful caspase inhibition-based therapies.

IT 741292-98-8P, [125I]M 808
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (active site probe [125I]M808 reveals high fractional inhibition of

human caspase-3 is needed to block apoptosis-induced DNA fragmentation)

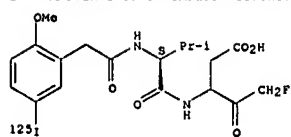
RN 741292-98-8 CAPLUS

CN Pentanoic acid, 5-fluoro-3-[[[(2S)-2-[[[5-(4-oxo-125I)-2-methoxyphenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

same
inventors
X

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 2002:185062 CAPLUS
 DOCUMENT NUMBER: 136:232548
 TITLE: Preparation of γ -keto acid dipeptides as inhibitors of caspase-3
 INVENTOR(S): Han, Yongxin; Giroux, Andre; Grimm, Erich L.; Aspiotis, Renee; Black, Cameron
 PATENT ASSIGNEE(S): Merck Frosst Canada & Co., Can.
 SOURCE: PCT Int. Appl., 99 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020465	A2	20020314	WO 2001-CA1272	20010906
W:	AE, AG, AL, AM, AT, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KR, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2421172	A1	20020314	CA 2001-2421172	20010906
AU 2001093533	A5	20020322	AU 2001-93533	20010906
EP 1317414	A2	20030611	EP 2001-973867	20010906
JP 200452080	T	20040715	JP 2002-525088	20010906
US 2002165230	A1	20021107	US 2001-948244	20010907
US 6525025	B2	20030225		
PRIORITY APPLN. INFO.:			US 2000-231019P	P 20000908
			WO 2001-CA1272	W 20010906

OTHER SOURCE(S): MARPAT 136:232548

AB γ -Keto acid dipeptides RCR12CONHCR2R3CONHCH(CH2CO2H)COCH2-O-W-Z [W = a bond, CH2, CO or COCH2; Z = H, (un)substituted alkyl, cycloalkyl or a benzofused analog, Ph, naphthyl or a 5- to 10-membered mono- or bicyclic, aromatic or non-aromatic ring, or a benzofused analog, containing 1-3 heteroatoms]

selected from O, S and N; R = (un)substituted alkoxyphenyl; R1 = H, halo, OH, alkyl or alkoxy optionally substituted by oxo or 1-3 halo groups; R2 =

H, Ph, naphthyl, (un)substituted (cyclo)alkyl; R3 = H or R2R3 represent a 4-7 membered ring optionally containing one heteroatom selected from O, S and

N] were prepared as inhibitors of caspase-3. Thus, (3S)-5-[(2-chloro-6-fluorobenzyl)oxy]-3-[[[(2S)-2-[[[2-(2,5-dimethoxyphenyl)acetyl]amino]-3-methylbutanoyl]amino]-4-oxopentanoic acid was prepared by the solid phase method by loading (S)-FmocNHCH(CH2CO2Bu-t)COCH2Br (Fmoc = fluorenylmethoxycarbonyl) (preparation described) onto a solid support

using the technol. described by Webb et al. (1992).

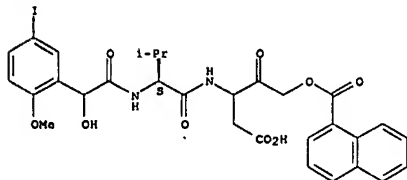
IT 403499-45-6P 403499-46-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

same
inventors

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (prepn. of γ -keto acid dipeptides as inhibitors of caspase-3)
 RN 403499-45-6 CAPLUS
 CN 1-Naphthalenecarboxylic acid, 4-carboxy-3-[[[(2S)-2-[[hydroxy(5-iodo-2-methoxyphenyl)acetyl]amino]-3-methyl-1-oxobutyl]amino]-2-oxobutyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 403499-46-7 CAPLUS
 CN Pentanoic acid,
 3-[[[(2S)-2-[[hydroxy(5-iodo-2-methoxyphenyl)acetyl]amino]-3-methyl-1-oxobutyl]amino]-5-(1-naphthalenyloxy)-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

